(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 June 2001 (07.06.2001)

PCT

(10) International Publication Number
WO 01/39796 A3

(51) International Patent Classification[7]: A61K 39/00

(21) International Application Number: PCT/CA00/01413

(22) International Filing Date:
29 November 2000 (29.11.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/168,594	29 November 1999 (29.11.1999)	US
09/724,842	28 November 2000 (28.11.2000)	US

(71) Applicant *(for all designated States except US)*: **NEUROCHEM INC.** [CA/CA]; 7220 Frederick-Banting, Suite 100, Ville Saint-Laurent, Québec H4S 2A1 (CA).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **CHALIFOUR, Robert** [CA/CA]; 332 Place Ladouceur, Ile Bizard, Québec H9C 1T4 (CA). **HÉBERT, Lise** [CA/CA]; 6035 boul. Gouin est, Montreal Nord, Québec H1G 1T4 (CA). **KONG, Xianqi** [CA/CA]; 12 Papillon Street, Dollard-des-Ormeaux, Québec H9B 3J7 (CA). **GERVAIS, Francine** [CA/CA]; 1003 Bellevue, Ile Bizard, Québec H9C 2X5 (CA).

(74) Agent: **CAWTHORN, Christian**; Swabey Ogilvy Renault, Suite 1600, 1981 McGill College Avenue, Montreal, Québec H3A 2Y3 (CA).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

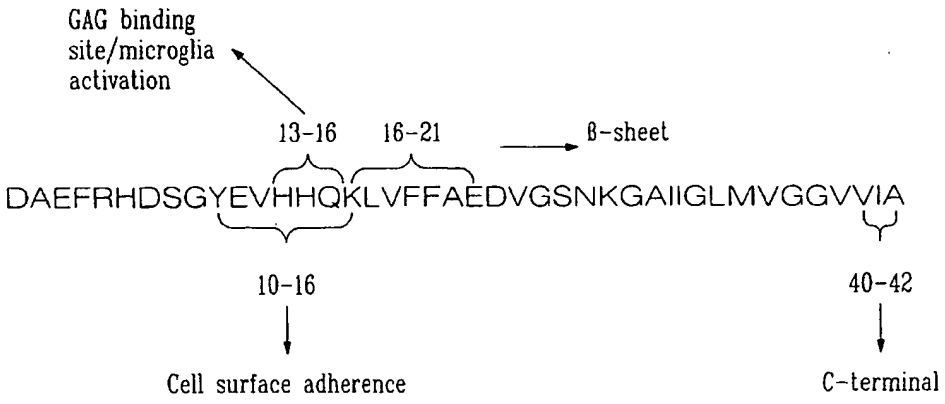
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
6 December 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VACCINE FOR THE PREVENTION AND TREATMENT OF ALZHEIMER'S AND AMYLOID RELATED DISEASES



(57) Abstract: The present invention relates to a stereochemically based "non-self" antigen vaccine for the prevention and/or treatment of Alzheimer's and other amyloid related diseases. The present invention provides a vaccine for the prevention and treatment of Alzheimer's and other amyloid related diseases, which overcomes the drawbacks associated with using naturally occurring peptides, proteins or immunogens.

WO 01/39796 A3

INTERNATIONAL SEARCH REPORT

Internat' al Application No
PCT/CA 00/01413

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K39/00 A61K39/395 A61P25/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
MEDLINE, LIFESCIENCES, EMBASE, CHEM ABS Data, SCISEARCH, BIOSIS, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 08868 A (PRAECIS PHARM INC) 5 March 1998 (1998-03-05) page 3, line 19-29 page 4, line 7-21 page 25, line 26 claims ---	21-38
P,X	WO 00 68263 A (NEUROCHEM INC ;GUPTA AJAY (CA); CHALIFOUR ROBERT (CA); GERVAIS FRA) 16 November 2000 (2000-11-16) page 5, line 14-31 page 6, line 20 -page 7, line 31 claims --- -/--	1-9, 21-38

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
22 May 2001	06/06/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Covone, M

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	VAN REGENMORTEL M H ET AL: "D - peptides as immunogens and diagnostic reagents." CURRENT OPINION IN BIOTECHNOLOGY, (1998 AUG) 9 (4) 377-82. REF: 37 , XP000990989 the whole document	1-49
A	WO 99 58564 A (ERIKSEN JON AMUND ;GAUDERNACK GUSTAV (NO); MOELLER MONA (NO); NORS) 18 November 1999 (1999-11-18) page 7, line 15-29 claims 12-14	1-49
A	BENKIRANE NADIA ET AL: "Antigenicity and immunogenicity of modified synthetic peptides containing D-amino acid residues: Antibodies to a D-enantiomer do recognize the parent L-hexapeptide and reciprocally." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 268, no. 35, 1993, pages 26279-26285, XP002164690 ISSN: 0021-9258 the whole document	1-49

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/CA 00/01413

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9808868 A	05-03-1998	AU 4238797 A	19-03-1998
		EP 0929574 A	21-07-1999
		JP 2001500852 T	23-01-2001
		US 5985242 A	16-11-1999
WO 0068263 A	16-11-2000	AU 4529800 A	21-11-2000
WO 9958564 A	18-11-1999	NO 982098 A	09-11-1999
		AU 5451599 A	29-11-1999
		EP 1075490 A	14-02-2001